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09/825,225	04/03/2001	Larry D. Barto	M-7511 US	9817
33438	7590	03/02/2004	EXAMINER	
HAMILTON & TERRILE, LLP P.O. BOX 203518 AUSTIN, TX 78720			FRANK, ELLIOT L	
			ART UNIT	PAPER NUMBER
			2125	11

DATE MAILED: 03/02/2004

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**BEFORE THE BOARD OF PATENT APPEALS  
AND INTERFERENCES**

Paper No. 14

Application Number: 09/825,225  
Filing Date: April 03, 2001  
Appellant(s): BARTO ET AL.

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Stephen A. Terrile  
For Appellant

**EXAMINER'S ANSWER**

**MAILED**  
**MAR 02 2004**  
**Technology Center 2100**

This is in response to the appeal brief filed 28 November 2003

**(1) *Real Party in Interest***

A statement identifying the real party in interest is contained in the brief.

**(2) *Related Appeals and Interferences***

A statement identifying the related appeals and interferences which will directly affect or be directly affected by or have a bearing on the decision in the pending appeal is contained in the brief.

**(3) *Status of Claims***

The statement of the status of the claims contained in the brief is correct.

**(4) *Status of Amendments After Final***

No amendment after final has been filed.

**(5) *Summary of Invention***

The summary of invention contained in the brief is correct.

**(6) *Issues***

The appellant's statement of the issues in the brief is correct.

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**(7) Grouping of Claims**

The rejection of claims 1-26 stand or fall together because appellant's brief does not include a statement that this grouping of claims does not stand or fall together and reasons in support thereof. See 37 CFR 1.192(c)(7).

**(8) Claims Appealed**

The copy of the appealed claims contained in the Appendix to the brief is correct.

**(9) Prior Art of Record**

5,446,671

WEAVER et al.

8-1995

**(10) Grounds of Rejection**

The following ground(s) of rejection are applicable to the appealed claims:

Claims 1-26 are rejected under 35 U.S.C. 102(b) as being anticipated by Weaver et al. (USPN 5,446,671).

The limitations of the aforementioned claims, and the relevant citations in Weaver et al., are as follows:

1. An automated system that monitors work-in-process ("WIP") in a manufacturing facility (column 1, lines 8-13), comprising:
  - a software object that determines when an evaluation cycle should be invoked;
  - and

a recommendation wakeup listener object that performs the evaluation cycle (column 4, line 53-column 5, lines 5), the recommendation wakeup listener object further including:

a software object that identifies a bottleneck workstation;

a software object that calculates a WIP value representing the amount of work approaching the bottleneck workstation;

a software object that determines whether the WIP value is projected to fall below a control limit during an evaluation period; and a software object that recommends, if the WIP value is projected to fall below the control limit during the evaluation period, that a selected amount of additional work be released into the manufacturing line (column 1, line 44-column 2, line 26).

2. The automated system recited in Claim 1, wherein the work approaching the bottleneck workstation comprises one or more product types (column 3, lines 3-25).

3. The automated system recited in Claim 1, wherein the additional work comprises one or more product types (column 2, lines 40-52).

4. The automated system recited in Claim I further comprises: a software object that selects one or more product types for the selected amount of additional work (column 5, lines 6-50).

10. The method recited in Claim 8, wherein: providing a software object to identify a bottleneck workstation further comprises employing a software object to identify one or more of a plurality of bottleneck workstations (column 5, lines 6-15,

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wherein a resource query takes place to determine the state of the machines in the system).

11. The method recited in Claim 8, wherein providing a software object to calculate a WIP value representing the amount of work approaching the bottleneck workstation further comprises employing a software object to calculate a WIP value for each of a plurality of bottleneck workstations, wherein each of the WIP values represents work approaching the corresponding bottleneck workstation (column 1, line 44-column 2, line 26).

12. The method recited in Claim 8 wherein: providing a software object to determine whether the WIP value is projected to fall below a control limit during an evaluation period further comprises employing a software object to determine whether any of a plurality of WIP values is projected to fall below the control limit during the evaluation period (column 5, line 51-column 6, line 11).

13. The method recited in Claim 8, wherein: providing a software object to recommend, if the WIP value is projected to fall below the control limit during the evaluation period, that a selected amount of additional work be selected for the bottleneck workstation further comprises employing a software object to recommend, if the WIP value associated with each of a plurality of bottleneck workstations is projected to fall below the control limit during the evaluation period, that a selected amount of additional work be released into the manufacturing line (column 5, line 51-column 6, line 11).

Method claims 8 and 14 and facility claim 20 have the same functional limitations as claim 1, and are therefore anticipated by the same citations in Weaver et al.

System claim 5 and facility claim 24 have the same functional limitations as claim 1 as it is applied to multiple bottleneck machines. Weaver et al. anticipates the occurrence of multiple bottlenecks at column 2, lines 28-62.

System claim 7, method claim 16, and facility claims 21 and 26 have the same functional limitations as claim 2, and are therefore anticipated by the same citations in Weaver et al.

System claim 6, method claims 9 and 15, and facility claims 22 and 25 have the same functional limitations as claim 3, and are therefore anticipated by the same citations in Weaver et al.

Facility claim 23 has the same functional limitations as claim 4, and is therefore anticipated by the same citations in Weaver et al.

Method claims 17, 18 and 19 have the same functional limitations as claims 11, 12 and 13 respectively, and are therefore anticipated by the same citations in Weaver et al.

Claims 1-26 are read in entirety in Weaver et al.

**(11) Response to Argument**

The appellant's argument centers around specific limitations found in all of the independent claims 1, 5, 8, 14, 20 and 24: "...if the WIP value is projected to fall below the control limit during the evaluation period, that a selected amount of work be released

*into the manufacturing line.*" The appellant contends that this limitation is not read in the prior art of record (appeal brief, page 7, first full paragraph).

The primary reference relied upon by the examiner is Weaver et al. This control system is used to monitor and prevent potential bottleneck situations in a manufacturing line. In Weaver et al., work entering a machine is checked to determine whether the type of product being manufactured has certain queue level restrictions. These queue levels ( $Q_{MIN}$ ,  $Q_{MAX}$ ) indicate that the present machine is a potential production bottleneck while processing the particular product. Special control measures are then used to manage the backlog at the machine: If the current amount of work is below a designated level, or in between a  $Q_{MIN}$  and  $Q_{MAX}$  and rising, the product is passed to the machine to be processed. If the amount of work is deemed to above a certain level, or between  $Q_{MIN}$  and  $Q_{MAX}$  and falling, alternative work is introduced to the machine until a time appropriate for the bottleneck-causing work to be processed. The process is explained in Weaver et al. at column 1, line 44-column 2, line 26. The Weaver et al. system allows production speed to be maintained while preventing a large buildup of work at a potentially problematic machine.

The appellant states that the Weaver et al. system does not release new work into a manufacturing line based on a WIP level. This argument is deemed to be narrower than the broadest most reasonable interpretation of the claim language. The basic requirements of the disputed claim limitation are that when the WIP amount is at a certain level, additional work should be introduced to manage the workflow. The Weaver et al. system performs an equivalent function at each bottleneck station. In the



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prior art a machine receives a normal flow of work to be processed. Based on predetermined WIP levels established for a product and bottleneck machine, the work is either processed in the normal fashion, or alternative work is allowed to be introduced to the machine to prevent a potential bottleneck. The alternative work introduced to the station because of a certain WIP level is new to the station, regardless of its origin, and therefore deemed to satisfy the claim requirement of "releasing new work".

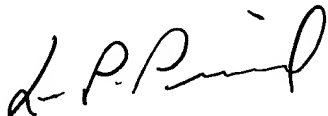
For the above reasons, it is believed that the rejections should be sustained.

Respectfully submitted,

Elliot L. Frank  
Examiner  
Art Unit 2125

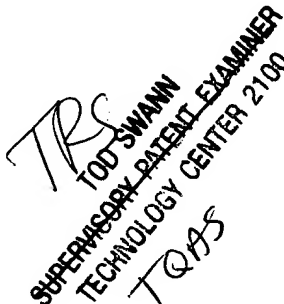
ELF  
February 25, 2004

Conferees  
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